

**COMBINED DECLARATION AND POWER OF ATTORNEY
FOR UTILITY PATENT APPLICATION**

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**PHASE SHIFT MASKING FOR COMPLEX PATTERNS WITH
PROXIMITY ADJUSTMENTS**

the specification of which

XX is attached hereto.
_____ was filed on _____ as Application No. _____
and was amended on _____.
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a) which states in relevant part: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section....The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98."

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate as indicated below and have also identified below any foreign application for patent or inventor's certificate on this invention having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

<u> </u> (Number)	<u> </u> (Country)	<u> </u> (Day/Month/Year Filed)	Yes <u> </u>	No <u> </u>
---	--	---	-----------------------	----------------------

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s), and under §119(e) of any United States provisional application(s), listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulation, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

<u>60/215,938</u> (Application Serial No.)	<u>5 July 2000</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)
<u>60/296,788</u> (Application Serial No.)	<u>8 June 2001</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)
<u>60/304,142</u> (Application Serial No.)	<u>10 July 2001</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)
<u>09/932,239</u> (Application Serial No.)	<u>17 August 2001</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)
<u>09/669,368</u> (Application Serial No.)	<u>26 September 2000</u> (Filing Date)	<u>Pending</u> (Patented, Pending, Abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith, and to file, prosecute and to transact all business in connection with international applications directed to said invention:

Mark A. Haynes	-	Reg. No. 30,846
Ernest J. Beffel, Jr.	-	Reg. No. 43,489
Warren S. Wolfeld	-	Reg. No. 31,454
James F. Hann	-	Reg. No. 29,719
Bill Kennedy	-	Reg. No. 33,407
Kent R. Richardson	-	Reg. No. 39,443
Erik L. Oliver	-	Reg. No. 46,296

Address all correspondence to:

CUSTOMER NO. 30437

NUMERICAL TECHNOLOGIES, INC. C/O:
Mark A. Haynes
Haynes Beffel & Wolfeld LLP
P.O. Box 366
Half Moon Bay, CA 94019

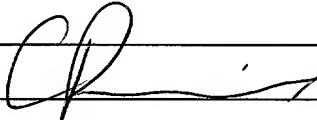
Direct all telephone calls to Mark A. Haynes at (650) 712-0340.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Title 18, United States Code, §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of **first** joint
inventor, if any:

Christophe Pierrat

Inventor's signature:



Date:

2/01/02

Citizenship:

France

Residence:

420 Riverside Court, #307

Santa Clara, CA 95054

Post Office Address:

Same as above.

EXPRESS MAIL LABEL NO.: EL685693346 US
DATE MAILED: 6 February 2002

Attorney Docket No. NMTI 1002-9

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
CHRISTOPHE PIERRAT) Group Art Unit: *Unassigned*
Application No. *Unassigned*) Examiner: *Unassigned*
Filed: *Herewith*)
For: **Phase Shift Masking for Complex**)
Patterns with Proximity Adjustments)

POWER OF ATTORNEY BY ASSIGNEE TO EXCLUSION OF INVENTOR
UNDER 37 C.F.R. § 3.71 WITH REVOCATION OF PRIOR POWERS

Commissioner of Patents
Washington, D.C. 20231

Sir:

The undersigned ASSIGNEE of the entire interest in the above-identified application for letters patent hereby appoints:

Mark A. Haynes	- Reg. No. 30,846
Ernest J. Beffel, Jr.	- Reg. No. 43,489
Kent R. Richardson	- Reg. No. 39,443
Warren S. Wolfeld	- Reg. No. 31,454
James F. Hann	- Reg. No. 29,719
Bill Kennedy	- Reg. No. 33,407
Erik L. Oliver	- Reg. No. 46,296

to prosecute this application and transact all business in the United States Patent and Trademark Office in connection therewith and hereby revokes all prior powers of attorney; said appointment to be to the exclusion of the inventors and the inventors' attorneys in accordance with the provisions of 37 C.F.R. § 3.71.

The following evidentiary documents establish a chain of title from the original owner to the Assignee:

X a copy of an Assignment attached hereto, which Assignment has been (or is herewith) forwarded to the Patent and Trademark Office for recording; or

___ the Assignment recorded on _____ at reel _____, frames _____.

Pursuant to 37 C.F.R. § 3.73(b) the undersigned Assignee hereby states that evidentiary documents have been reviewed and hereby certifies that, to the best of ASSIGNEE's knowledge and belief, title is in the identified ASSIGNEE.

Direct all telephone calls to Mark A. Haynes, Esq., at (650) 712-0340.

Address all correspondence to:

Customer Number 30437

NUMERICAL TECHNOLOGIES, INC. C/O:

Mark A. Haynes, Esq.
HAYNES BEFFEL & WOLFELD LLP
P.O. Box 366
Half Moon Bay, CA 94019
(650) 712-0340 (phone)
(650) 712-0263 (fax)

ASSIGNEE: NUMERICAL TECHNOLOGIES, INC.

Signature: 

Name: Erik L. Oliver

Title: Director of IP

Date: 2/1/2002

SOLE TO CORPORATE
ASSIGNMENT

COPY

WHEREAS, the undersigned,

(1) Christophe Pierrat
420 Riverside Court, #307
Santa Clara, CA 95054

hereinafter termed "Inventor", has invented certain new and useful improvements in

PHASE SHIFT MASKING FOR COMPLEX PATTERNS WITH PROXIMITY
ADJUSTMENTS

and has filed an application for a United States patent disclosing and identifying the above invention on _____ as Application No. _____, OR is filing such an application herewith, and has executed an oath or declaration of inventorship for such application on:

(1) the 1st day of February, 2002;

(hereinafter termed "application"); and

WHEREAS, Numerical Technologies, Inc., a corporation of Delaware, having a place of business at 70 W. Plumeria Drive, San Jose, CA 95134 (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventor (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventor to have been received in full from said Assignee:

1. Said Inventor does hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.


2. Said Inventor hereby jointly and severally covenants and agrees to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventor shall include prompt production of pertinent facts

and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventor hereby jointly and severally warrants and represents that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventor has executed and delivered this instrument to said Assignee as of the dates written below.



Christophe Pienrat

2/07/02

Date

State of _____)
County of _____)

On 1 Feb, 2002, before me, Erik L. Oliver, Notary Public
personally appeared Christophe Pienrat

X personally known to me or — proved to me on the basis of
~~satisfactory evidence~~, to be the person whose name is subscribed
to the within instrument and acknowledged to me that ~~he~~
executed the same in his/~~her~~ authorized capacity, and that by
his/~~her~~ signature on the instrument the person or the entity upon
behalf of which the person acted, executed the instrument.



WITNESS my hand and official seal.



(Notary Public)